

FIG. 1a

Sequence #1: AGCGTA

Primer 3016 Da	Extension Products	Mass (Da)
—	agcgta	4878.2
—	agcgt	4565.0
—	agcg	4260.8**
—	agc	3931.6
—	ag	3642.4*
—	a	3313.2

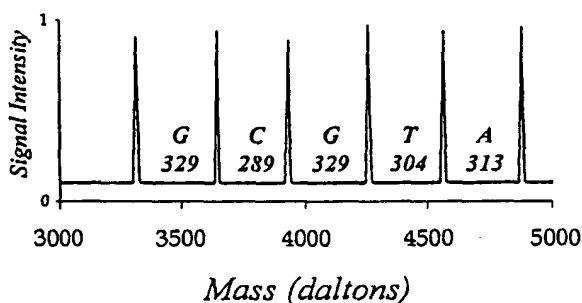


FIG. 1b

Sequence #2: GATCCT

Primer 3016 Da	Extension Products	Mass (Da)
—	gagcct	4854.2
—	gagcc	4550.0
—	gagc	4260.8**
—	gag	3971.6
—	ga	3642.4*
—	g	3329.2

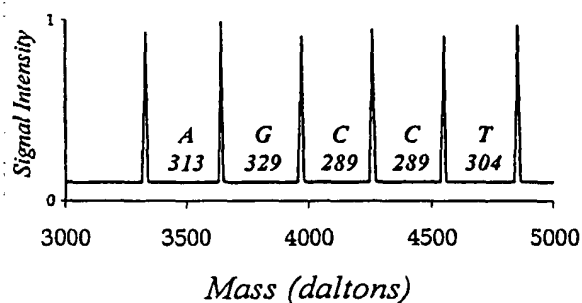


FIG. 1c

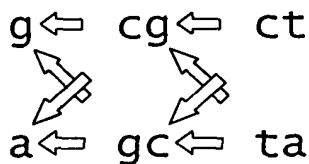
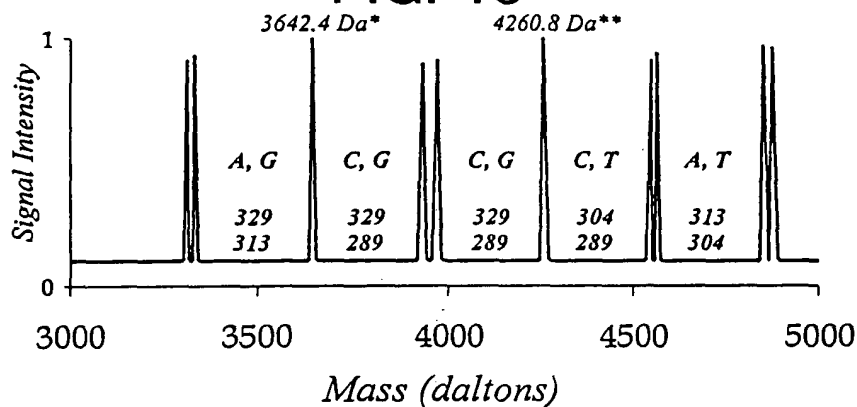


FIG. 1d

gCGct  
GCGTA  
 ggcct  
 ggcta  
 acgct  
 acgta  
AGCCT  
 agcta

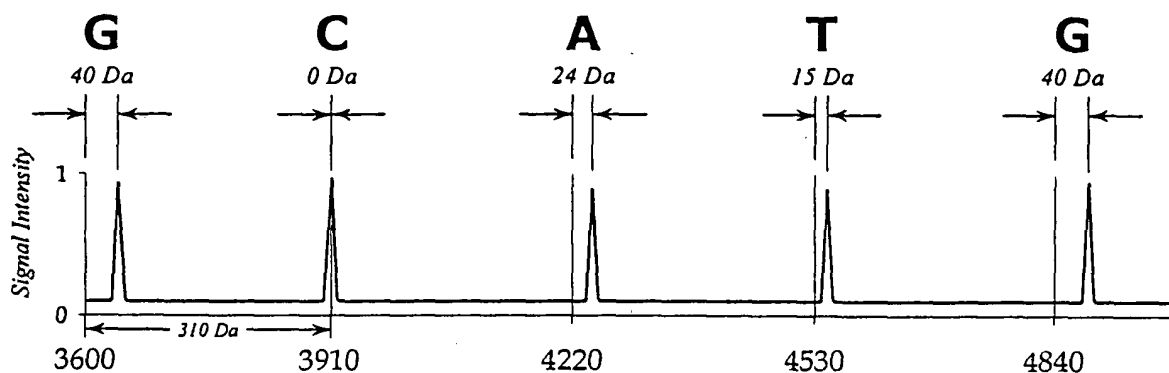
FIG. 1e

Nucleotide Mass (Da)

ddN	310
ddC	273
ddT	288
ddA	297
ddG	313

Sequence #1: GCATG

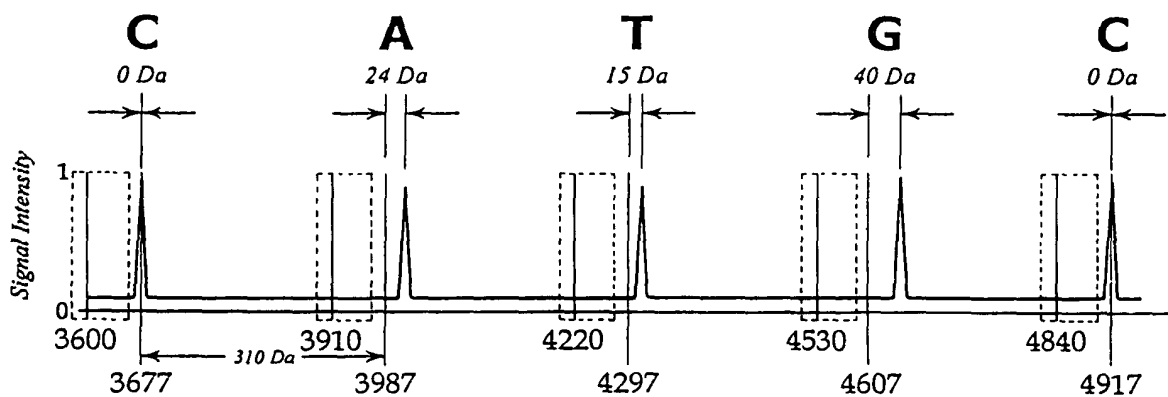
<u>Primer #1</u>	<u>Extension</u>	<u>Mass (Da)</u>
3327 Da	Products	
—	nnnng	4880
—	nnnt	4545
—	nna	4244
—	nc	3910
—	g	3640



Mass (daltons) FIG. 2a

Sequence #2: CATGC

<u>Primer #2</u>	<u>Extension</u>	<u>Mass (Da)</u>
3404 Da	Products	
—	nnnnc	4917
—	nnng	4647
—	nnt	4312
—	na	4011
—	c	3677



Mass (daltons) FIG. 2b

Sequence #1: GCATA

Primer #1 3327 Da	Extension Products	Mass (Da)
————	nnnna	4864
————	nnnt	4545
————	nna	4244
————	nc	3910
————	g	3640

Sequence #3: CATGC

Primer #3 3404 Da	Extension Products	Mass (Da)
————	nnnnc	4917
————	nnng	4647
————	nnt	4312
————	na	4011
————	c	3677

Sequence #2: TCAGG

Primer #2 3481 Da	Extension Products	Mass (Da)
————	nnnng	5034
————	nnng	4724
————	nna	4398
————	nc	4064
————	t	3769

Sequence #4: AACTC

Primer #4 3558 Da	Extension Products	Mass (Da)
————	nnnnc	5071
————	nnnt	4776
————	nnc	4451
————	na	4165
————	a	3855

Sequence

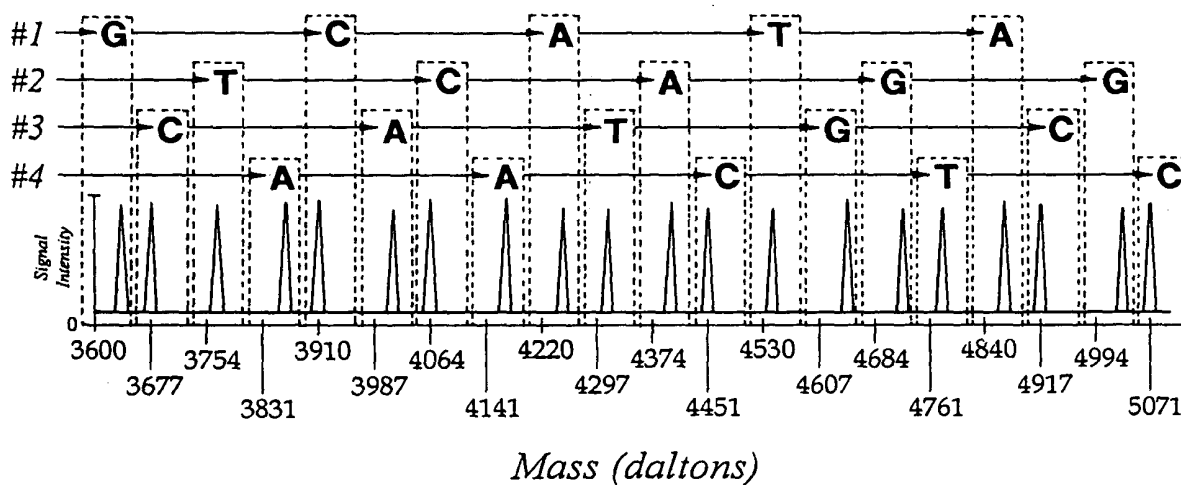


FIG. 3

FIG. 4a

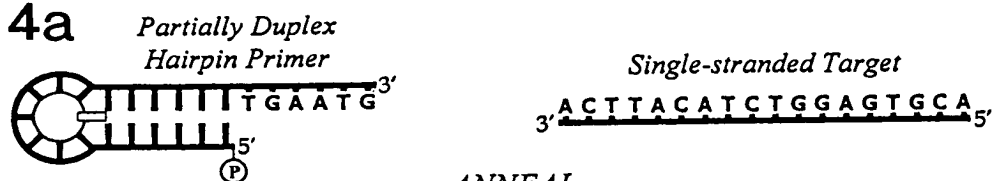


FIG. 4b

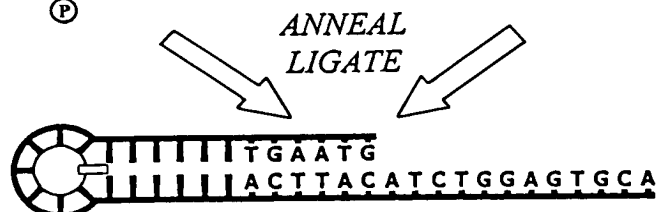


FIG. 4c

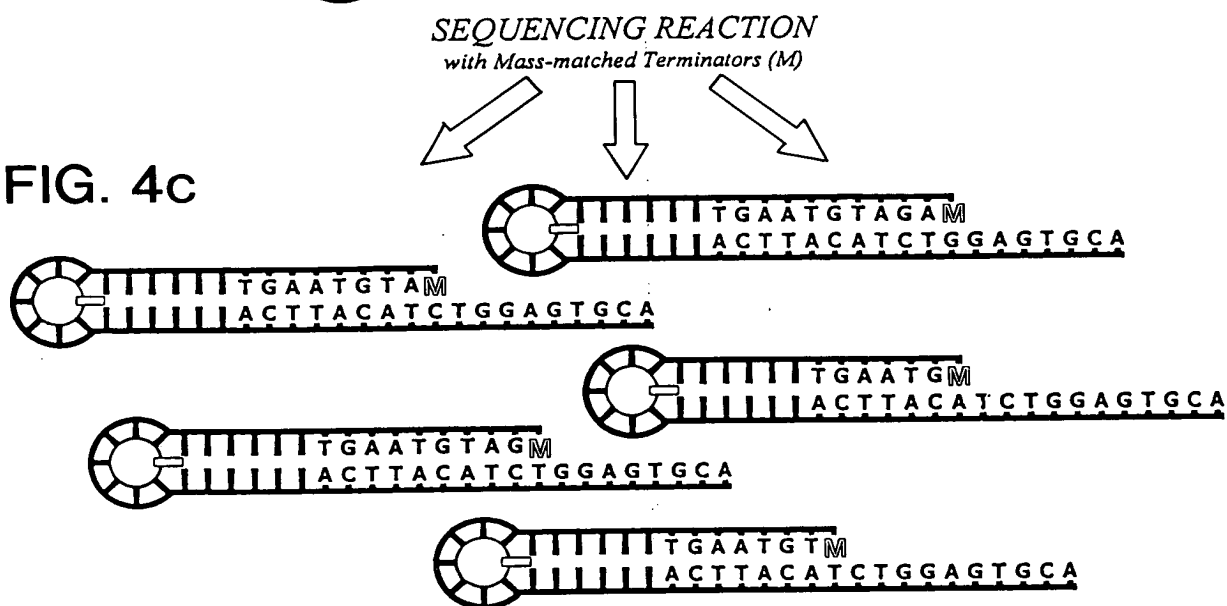
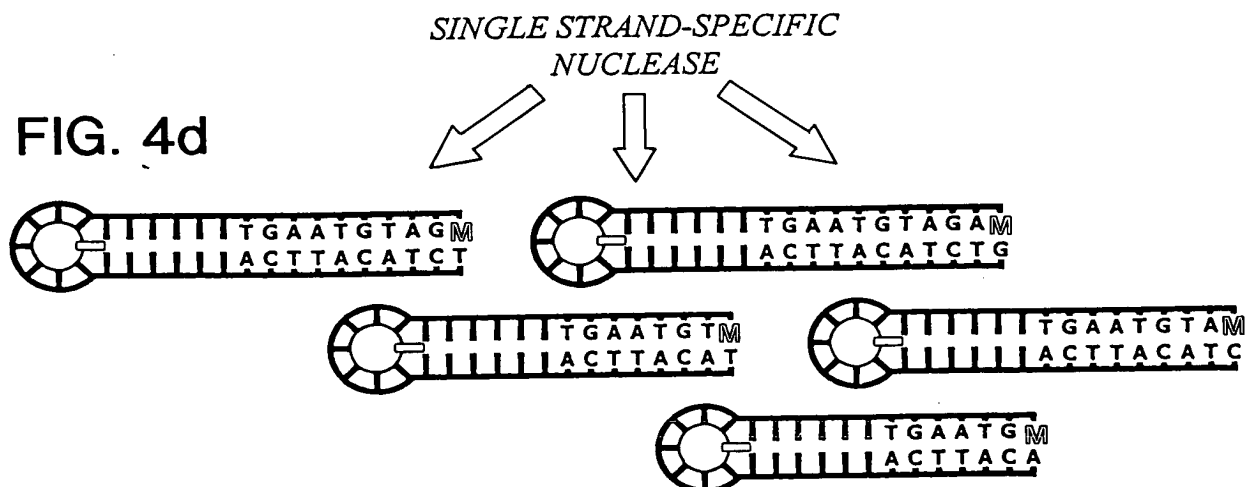


FIG. 4d








<i>Reaction Products</i>	<i>Mass (Da)</i>
	12868.6
	12227.2
	11594.8
	10992.4
	10384.0

FIG. 5a

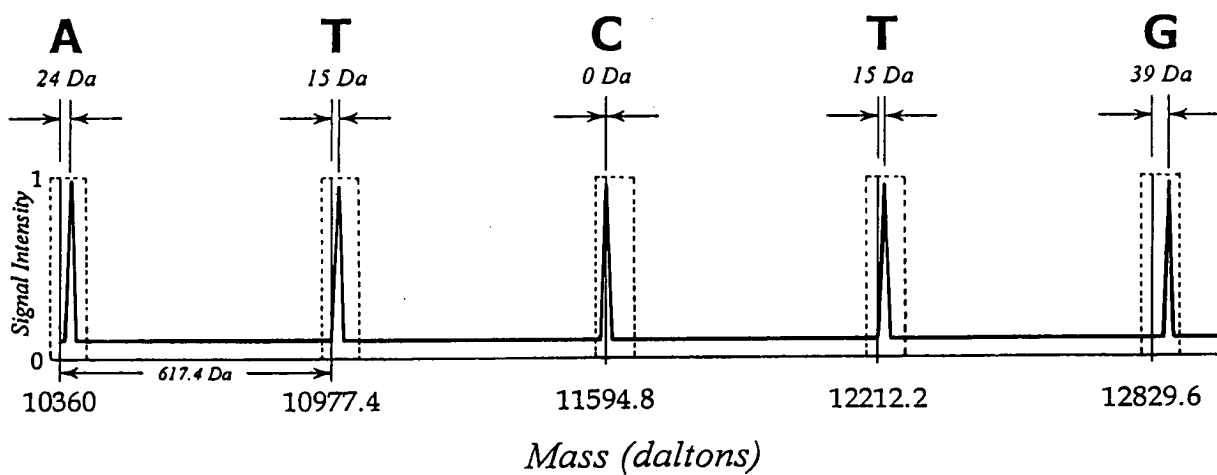


FIG. 5b

Variant #1: AACTGCAT			Variant #2: AACTTCAT			Variant #3: AAGTGCAT		
Primer	Extension	Mass (Da)	Primer	Extension	Mass (Da)	Primer	Extension	Mass (Da)
3616 Da	Products		3616 Da	Products		3616 Da	Products	
—	aactgcat	6054	—	aactccat	6029*	—	aagtgcac	6094**
—	aactgca	5750	—	aactcca	5725*	—	aagtgca	5790**
—	aactgc	5437	—	aactcc	5412*	—	aagtgc	5477**
—	aactg	5148	—	aactc	5123*	—	aagtg	5188**
—	aact	4819	—	aact	4819	—	aagt	4859**
—	aac	4515	—	aac	4515	—	aag	4555**
—	aa	4226	—	aa	4226	—	aa	4226
—	a	3913	—	a	3913	—	a	3913

FIG. 6a

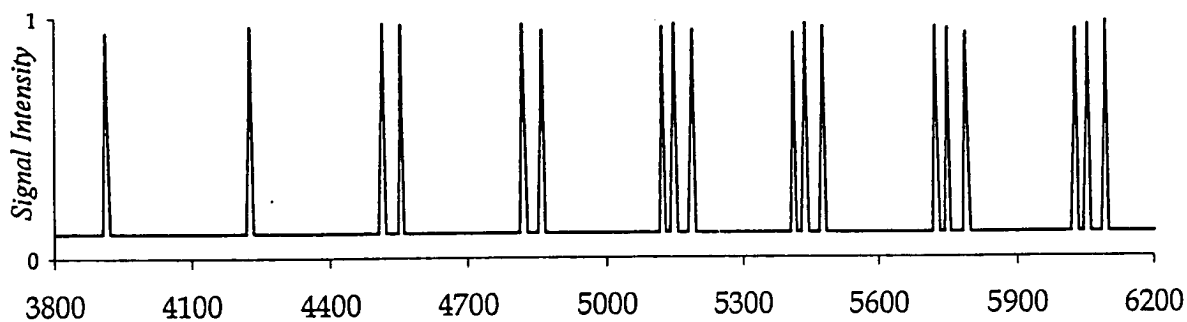


FIG. 6b Mass (daltons)

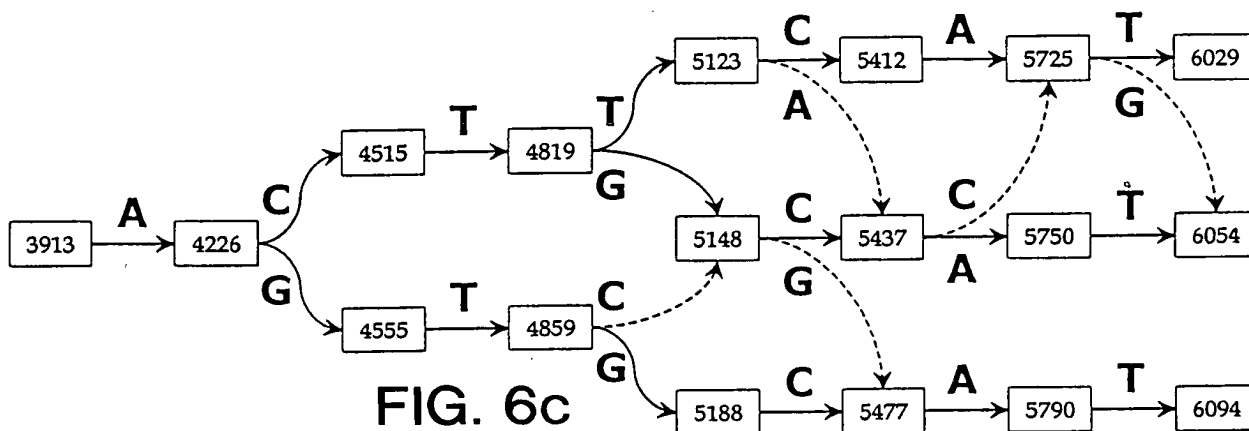


FIG. 6c

ACTGCAT    actgccg    actgcct    actggat    acttaat    acttacg    acttact  
 acttcag    ACTTCAT    agtccat    agtcccg    agtcct    agtcgat    AGTGCAT

FIG. 6d

<i>Variant #1: AACTGCAT</i>			<i>Variant #2: AACTTCAT</i>			<i>Variant #3: AAGTGCAT</i>		
<i>Primer</i>	<i>Extension</i>	<i>Mass (Da)</i>	<i>Primer</i>	<i>Extension</i>	<i>Mass (Da)</i>	<i>Primer</i>	<i>Extension</i>	<i>Mass (Da)</i>
3527 Da	Products		3527 Da	Products		3527 Da	Products	
————	nnnnnnnt	5985	————	nnnnnnnt	5985	————	nnnnnnnt	5985
————	nnnnnna	5684	————	nnnnnna	5684	————	nnnnnna	5684
————	nnnnnnc	5350	————	nnnnnnc	5350	————	nnnnnnc	5350
————	nnnnng	5080	————	nnnnnt	5055*	————	nnnnng	5080
————	nnnt	4745	————	nnnt	4745	————	nnnt	4745
————	nnc	4420	————	nnc	4420	————	nng	4460**
————	na	4134	————	na	4134	————	na	4134
————	a	3824	————	a	3824	————	a	3824

FIG. 7a

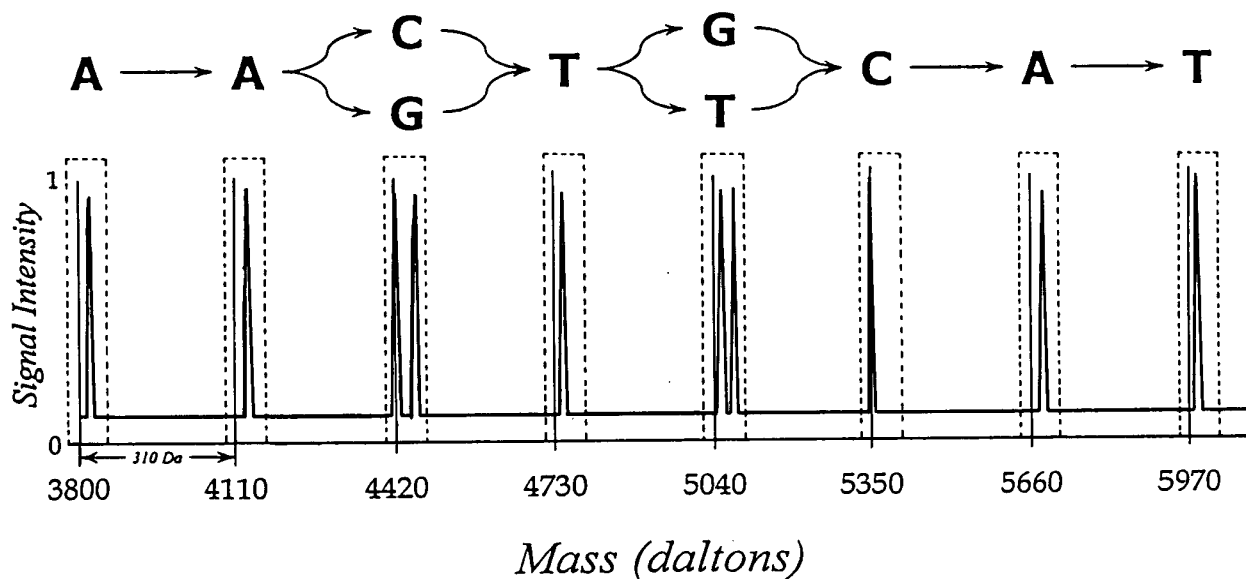


FIG. 7b

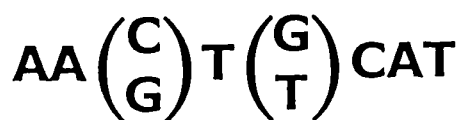
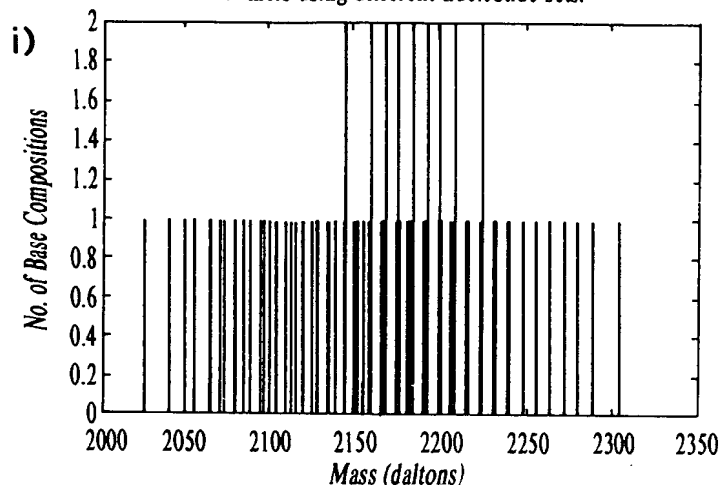


FIG. 7c

AACTGCAT  
 AACTTCAT  
 AAGTGCAT  
 aagttcat

FIG. 7d

Base composition density distributions for  
7-mers using different nucleotide sets.



C = 289.2

T = 304.2

A = 313.2

G = 329.2

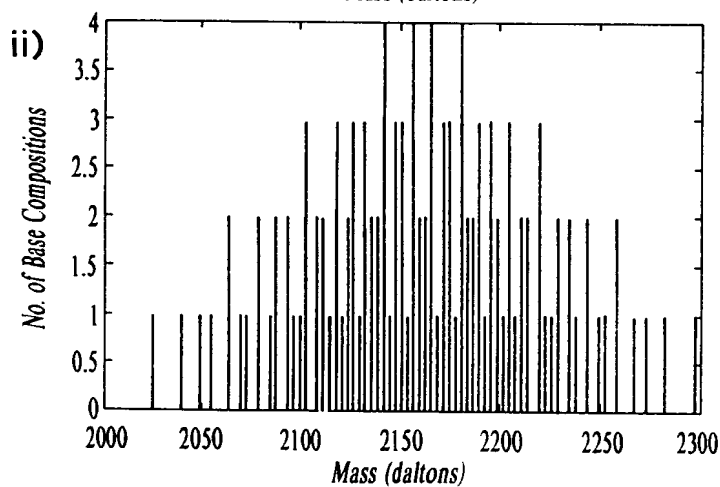
*Naturally Occurring Bases*

Peaks can be closer than one dalton

Total No. of different base compositions = 120

Actual number of represented masses = 110

Avg. No. of compositions per mass value = 1.091



C = 289.2

T = 304.2

A = 313.2

G = 328.2

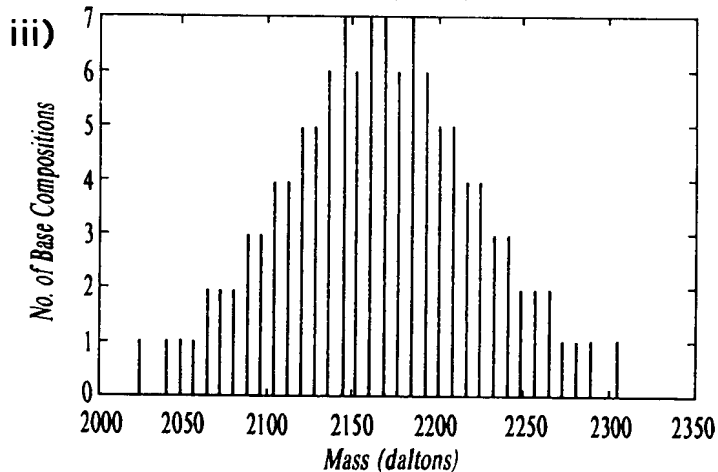
*Substitution with 7-deaza-dG*

Minimum peak separation = 3 daltons

Number of allowed mass values = 92

Actual number of represented masses = 64

Avg. No. of compositions per mass value = 1.875



C = 289.2

T = 305.2

A = 313.2

G = 329.2

*Substitution with deuterio-dT*

Minimum peak separation = 8 daltons

Number of allowed mass values = 36

Actual number of represented masses = 34

Avg. No. of compositions per mass value = 3.529

FIG. 8